

MAIL STOP PATENT APPLICATION
Attorney Docket: 25670
S/N: not yet assigned

ATTACHMENT A

In The Claims:

1. (Original) A method of producing a lyocell multi-filament for a tire cord, comprising:

i) dissolving mixed powder of cellulose and polyvinyl alcohol in a mixed solvent of N-methyl morpholine N-oxide and water to prepare a dope;

ii) extruding the dope using a spinning nozzle including orifices through air gaps into a conical upper

10 coagulation bath to coagulate the dope to produce a multi filament, said orifices each having a diameter (D) of 100 to 300 μm , a length (L) of 200 to 2400 μm , and a ratio of the length to the diameter (L/D) of 2 to 8, and being spaced apart from each other at intervals of 2.0 to 5.0 mm;

15 iii) feeding the multi-filament through a lower coagulation bath to a washing bath, and washing the multi-filament; and

iv) drying and oiling multi-filament and winding the resulting multi-filament.

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2. (Original) The method as set forth in claim 1, wherein polyvinyl alcohol of the mixed powder of cellulose and polyvinyl alcohol has a degree of polymerization of 1000 to 4000, and the mixed powder contains 0.5 to 30 wt% polyvinyl alcohol.

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3.. (Original) The method as set forth in claim 1, wherein the air gaps are spaced apart from each other at intervals of 20 to 300 mm, cooling air at 5 to 20 °C is fed into the air gaps,
5 and the relative humidity (RH) of each of the air gaps is maintained from 10 to 50 %.

4. (Original) The method as set forth in claim 1, wherein the spinning nozzle comprises 500 to 1500 orifices.

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5. (Original) A lyocell multi-filament having tenacity of 5 to 10 g/d, elongation of 3 to 13 %, modulus of 200 to 400 g/d, birefringence of 0.038 to 0.050, crystallinity of 40 to 52 %, shrinkage of -0.5 to 3 %, strength maintenance after a high
15 temperature and saturated vapor treatment of 90 % or higher, and fineness of 1000 to 2500 deniers.

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6. (Original) The lyocell multi-filament as set forth in claim 5, wherein elongation is 0.5 to 4.0 % at a load of 4.5 kg.

7. (Original) The lyocell multi-filament as set forth in claim 5, wherein a load at break is 5.0 to 25.0 kg.

8. (Currently amended) A tire cord comprising the lyocell multi-filament according to any one of claims 5 to 7 claim 5.

9. (Original) A dip cord for tire cords produced using the tire cord according to claim 8.

5 10. (Original) The dip cord as set forth in claim 9, having fineness of 3000 to 6000 deniers, twist constant of 0.67 to 0.85, and a load at break of 14.0 to 28.0 kg.

11. (Currently amended) A tire for automobiles comprising the lyocell multi-filament according to ~~any one of claims 5 to 7~~ claim 5.

12. (Original) A tire comprising the dip cord according to claim 9.

13. (New) A tire cord comprising the lyocell multi-filament according to ~~any one of claims 5 to 7~~ claim 6.

14. (New) A tire cord comprising the lyocell multi-filament according to ~~any one of claims 5 to 7~~ claim 7.

15. (New) A tire for automobiles comprising the lyocell multi-filament according to ~~any one of claims 5 to 7~~ claim 6.

16. (New) A tire for automobiles comprising the lyocell multi-filament according to ~~any one of claims 5 to 7~~ claim 7.